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ABCA4 Antibody (C-Term)

Peptide-affinity purified goat antibody
Catalog # AF2776a

Specification

ABCA4 Antibody (C-Term) - Product Information

Application	**IF**
Primary Accession	P78363
Other Accession	NP_000341.2, 24
Predicted	**Human, Dog**
Host	**Goat**
Clonality	**Polyclonal**
Concentration	**0.5 mg/ml**
Isotype	**IgG**
Calculated MW	**255944**

ABCA4 Antibody (C-Term) - Additional Information

Gene ID 24

Other Names
Retinal-specific ATP-binding cassette transporter, ATP-binding cassette sub-family A member 4, RIM ABC transporter, RIM protein, RmP, Stargardt disease protein, ABCA4, ABCR

Format
0.5 mg/ml in Tris saline, 0.02% sodium azide, pH7.3 with 0.5% bovine serum albumin

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
ABCA4 Antibody (C-Term) is for research use only and not for use in diagnostic or therapeutic procedures.

ABCA4 Antibody (C-Term) - Protein Information

Name ABCA4 (HGNC:34)

Function
Flippase that catalyzes in an ATP-dependent manner the transport of retinal-phosphatidylethanolamine conjugates like the 11- cis and all-trans isomers of N-retinylidene-phosphatidylethanolamine from the lumen to the cytoplasmic leaflet of photoreceptor outer segment disk membranes, where N-cis-retinylidene-phosphatidylethanolamine (N-cis-R-PE) is then isomerized to its all- trans isomer (N-trans-R-PE) and reduced by RDH8 to produce all-trans- retinol (all-trans-rol) and therefore prevents the accumulation of excess of 11-cis-retinal and its schiff-base conjugate and the formation of toxic

bisretinoid (PubMed:24097981, PubMed:22735453, PubMed:23144455, PubMed:20404325, PubMed:10075733, PubMed:29847635, PubMed:33375396). May display both ATPase and GTPase activity that is strongly influenced by the lipid environment and the presence of retinoid compounds (PubMed:22735453). Binds the unprotonated form of N- retinylidene-phosphatidylethanolamine with high affinity in the absence of ATP, and ATP binding and hydrolysis induce a protein conformational change that causes the dissociation of N-retinylidene- phosphatidylethanolamine (By similarity).

Cellular Location
Membrane; Multi- pass membrane protein. Endoplasmic reticulum. Cytoplasmic vesicle. Cell projection, cilium, photoreceptor outer segment {ECO:0000250|UniProtKB:F1MWM0}. Note=Localized to the rim and incisures of rod outer segments disks. {ECO:0000250|UniProtKB:F1MWM0}

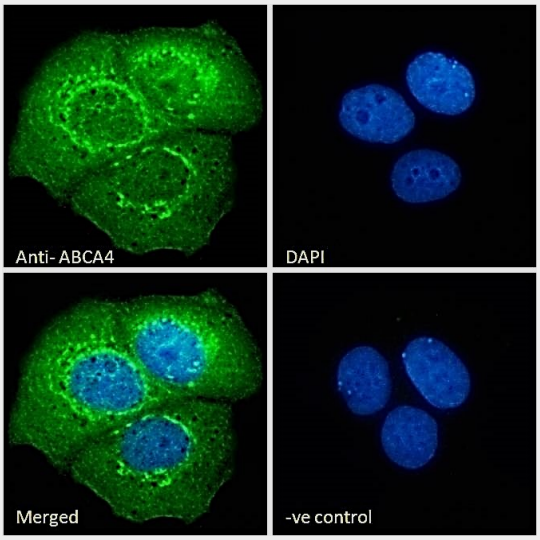
Tissue Location
Retinal-specific. Seems to be exclusively found in the rims of rod photoreceptor cells

ABCA4 Antibody (C-Term) - Protocols

Provided below are standard protocols that you may find useful for product applications.

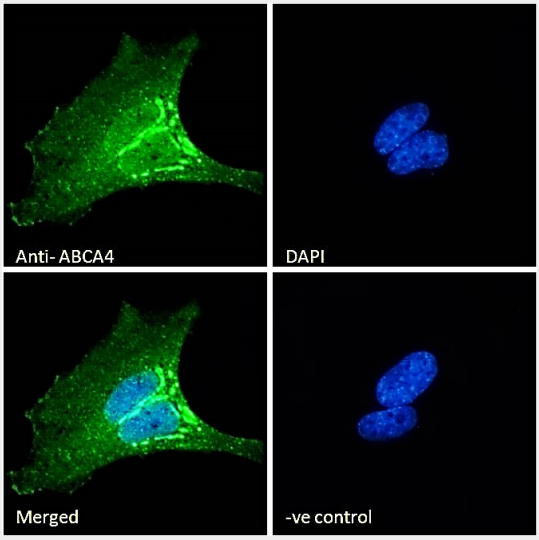
- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

ABCA4 Antibody (C-Term) - Images



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EB08615 Immunofluorescence analysis of paraformaldehyde fixed MCF7 cells, permeabilized with 0.15% Triton. Primary incubation 1hr (10ug/ml) followed by Alexa Fluor 488 secondary antibody (2ug/ml), showing endoplasmic reticulum staining. The nuclear stain is DAPI (blue). Negative control: Unimmunized goat IgG (10ug/ml) followed by Alexa Fluor 488 secondary antibody (2ug/ml).



EB08615 Immunofluorescence analysis of paraformaldehyde fixed HeLa cells, permeabilized with 0.15% Triton. Primary incubation 1hr (10ug/ml) followed by Alexa Fluor 488 secondary antibody (2ug/ml), showing endoplasmic reticulum staining. The nuclear stain is DAPI (blue). Negative control: Unimmunized goat IgG (10ug/ml) followed by Alexa Fluor 488 secondary antibody (2ug/ml).

ABCA4 Antibody (C-Term) - References

Homozygous null mutations in the ABCA4 gene in two families with autosomal recessive retinal dystrophy Singh HP, Jalali S, Hejtmancik JF, Kannabiran C Am J Ophthalmol. 2006 May;141(5):906-13 PMID: 16546111